



# Procedures/Diagnostic Tests

Warren Grant Magnuson Clinical Center  
National Institutes of Health

## Persantine Thallium Scan

**Outpatient instruction sheet** *Test location: 1st floor heart station, behind the admissions desk*

Patient name

Doctor

Test date

Test time

*This time is reserved only for you, so please arrive promptly. You might want to allow time for parking and taking the elevator.*

*If you need to cancel this test, call the Nuclear Medicine Department at 301-496-5675 or the exercise lab at 301-496-3050. Call either number if you have questions before the test.*

*Your doctor wants you to stop taking the following heart medication(s) \_\_\_\_\_ day(s) before this test: Otherwise, it is usually ok to take your medications as usual. Call the exercise lab nurse if you have questions about medications.*

*You are scheduled for a persantine thallium scan. This test shows how well blood supplies your heart muscle after exercise and at rest. For this test, two substances will be injected into an arm vein: persantine and thallium.*

*You will get persantine because you are unable to walk on a treadmill. Persantine makes the heart mimic the effects of exercise so that you do not need to walk on the treadmill.*

*Thallium 201 is a radioactive compound that helps make scanning pictures. When thallium goes to tissues with normal blood flow, they look light when they are scanned; tissues with poor blood flow look dark. Thallium has about the same amount of radiation as a chest x-ray.*

*Your heart will be scanned twice: once after you get persantine and thallium, and again after you rest about 2 hours. A cardiologist evaluates your heart by comparing these two scans.*

### Preparation:

- **After midnight on the day of the test, do not eat or drink anything except water.**
- Drink lots of water before (and after) the test.
- Avoid caffeine 24 hours before your test time. Caffeine is found in coffee, tea, chocolate, cola and other soft drinks, and some pain medications. Please read labels carefully. *If you have had any caffeine on the morning of the test, call the nurse at 301-496-3050 before you come to the hospital.*
- Wear loose, comfortable clothes. Avoid one-piece outfits and pantyhose.
- The testing period will be about 5 hours, so you might want to bring something to read.
- Your health history may rule out your receiving persantine. To make sure that persantine can be given to you safely, your nurse and doctor will ask you these questions:

- Do you have a history of asthma?
- Do you use inhalers?
- Do you have aortic stenosis (narrowing of the valve that lets blood out of your aorta)?
- Have you had a heart attack within the last month?
- Has your chest pain (angina) recently gotten worse or occurred more or less often?

### Procedure:

1. Check in at the first floor heart station (located behind the admissions desk).
2. For the persantine test, you will be asked to lie on a bed.
3. You will be connected to a cardiac monitor to check your heart rate and rhythm. An automatic blood pressure cuff will also be placed on one arm to measure your blood pressure.
4. An I.V. (intravenous) line will be put into one of your arm veins. Persantine will be given through this line.
5. Persantine will be given over a period of 4 minutes. After persantine is given, you might feel these side effects: headache, facial flushing, tingling, nausea, faster breathing, and chest discomfort. Many patients feel no side effects, but if you feel some, let your doctor or nurse know. The doctor has medication to reverse uncomfortable side effects that do not go away quickly.
6. A few minutes after persantine is given, thallium will be given through your I.V. You will feel nothing when it is injected.
7. You will then be seated in a wheelchair and taken immediately to the Nuclear Medicine Department. There, your heart will be scanned.

*The first scan:* You will be helped to lie on a narrow table with your arms raised over your head. You will need to lie still for about 30 minutes while the camera scans your heart. After this scan, your I.V. will be capped so that you can walk around freely. You will be asked to return to the Nuclear Medicine Department in about 2 hours. (You will be given an exact time.) While you wait for the second scan, you must not eat, but you may drink water only.

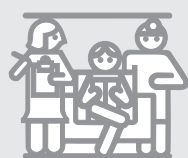
*The second scan:* When you return to the Nuclear Medicine Department, you will get a second small dose of thallium, and you will be scanned again.

### After the Procedure:

- When the second scan is completed, your I.V. will be removed. You may return home and do your usual activities, including driving.
- Drink lots of water to help rid your body of thallium.
- Your referring doctor or your NIH doctor will give you the results.

### Special Instructions:

If you have questions about the procedure, please ask. Your nurse and doctor are ready to assist you at all times.



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This information is prepared specifically for patients participating in clinical research at the Warren Grant Magnuson Clinical Center at the National Institutes of Health and is not necessarily applicable to individuals who are patients elsewhere. If you have questions about the information presented here, talk to a member of your healthcare team.

Questions about the Clinical Center? [OCCC@cc.nih.gov](mailto:OCCC@cc.nih.gov)

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